

WHAT IS CLAIMED IS:

1. A valve mechanism adapted for a fluid-discharging port of a tube-type fluid container, comprising:

a valve seat portion having an opening through which a fluid flows;

a valve portion comprising a valve body having a shape corresponding to said opening, and a shaft connected to said valve body and extending downward from said valve body; and

a valve support portion comprising: (i) a bottom plate to which a tip of the shaft is connected; (ii) an annular support fixedly connected to the valve seat portion; and (iii) multiple connectors connecting the bottom plate and the annular support, said connectors elastically urging the bottom plate downward to close the opening with the valve body and being bendable as the bottom plate moves upward and pushes the valve portion to open the opening.

2. The valve mechanism as claimed in Claim 1, wherein said multiple connectors are composed of three or more connectors.

3. The valve mechanism as claimed in Claim 1, wherein said multiple connectors have flexions.

4. The valve mechanism as claimed in Claim 1, wherein a convex portion facing toward said valve body is formed in a portion in said opening, which convex portion contacts said valve body when said valve body closes said opening.

5. The valve mechanism as claimed in Claim 1, wherein a convex portion facing toward said opening is formed in a portion in said valve body, which convex portion contacts said valve seat portion when said valve body closes said opening.

6. The valve mechanism as claimed in Claim 1, wherein said valve portion comprises a guide portion disposed on the side opposite to said shaft, and said valve mechanism comprises a supporting body comprising (a) an opening portion for discharging a fluid and (b) a guide material guiding said guide portion.

7. The valve mechanism as claimed in Claim 6, wherein said guide material comprises multiple ribs contacting the outer circumferential surface of said guide portion.

8. The valve mechanism as claimed in Claim 6, wherein said valve seat portion contacts both of the bottom surface and the end surface of said valve body in a position in which said valve body closes said opening.

9. The valve mechanism as claimed in Claim 6, wherein said multiple connectors are composed of three or more connectors.

10. The valve mechanism as claimed in Claim 6, wherein said multiple connectors have flexions.

11. A tube-type fluid container comprising a tubular container main unit, at one end of which a fluid-discharging port is formed, and the valve mechanism as claimed in Claim 1.

12. The tube-type fluid container as claimed in Claim 11, wherein said multiple connectors are composed of three or more connectors.

13. The tube-type fluid container as claimed in Claim 11, wherein said multiple connectors have flexions.

14. The tube-type fluid container as claimed in Claim 11, wherein said container main unit comprises (A) an internal container storing a fluid, and (B) an external container which is composed of a material having an elasticity recovering force and encompasses said internal container in such a way that an interior space shut off from the outside is formed between said external container and said internal container, and in which a hole communicating with said interior space and the outside is formed.

15. The tube-type fluid container as claimed in Claim 14, wherein said hole formed in said external container has a size which can let a small amount of air through.

16. The tube-type fluid container as claimed in Claim 14, wherein said hole formed in said external container is formed in a portion to which a pressure is applied when the fluid is discharged.

17. The tube-type fluid container as claimed in Claim 14, wherein opening portions of said internal container and of said external container are connected to each other at said fluid-discharging port, and said internal container and said external container are welded at their bottoms.

18. A tube-type fluid container comprising a tubular container main unit, at one end of which a fluid-discharging port is formed, and a valve mechanism disposed at the

fluid-discharging port, wherein said container main unit comprises (A) an internal container storing a fluid, and (B) an external container which is composed of a material having an elasticity recovering force and encompasses said internal container in such a way that an interior space shut off from the outside is formed between said external container and said internal container, and in which a hole communicating with said interior space and the outside is formed.

19. A valve comprising:

- a seat having an opening through which a fluid may flow;
- a seal comprising a body having a shape corresponding to said opening; and
- a support for coupling said seal to said seat, the support comprising multiple elastically deformable connectors, said connectors producing a biasing force that causes the seal to substantially close the opening;

wherein the connectors are adapted to elastically deform in response to a fluid pressure on said seal that overcomes the biasing force so as to permit the flow of fluid through the opening.

20. The valve as claimed in Claim 19, wherein the opening comprises a first ledge, the seat comprises a second ledge, the second ledge sits on the first ledge when the opening is closed by the biasing force.

21. The valve as claimed in Claim 20, wherein at least one of the first ledge and the second ledge comprises at least one tab.